

=====

Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2009; month=5; day=28; hr=12; min=33; sec=4; ms=333;]

=====

Reviewer Comments:

<140> 10/082,973

2002-02-26

Please insert a <141> at the beginning of the above "2002-02-26" line; <141> is a mandatory numeric identifier indicating the current filing date.

<210> 8

<211> 56

<212> DNA

<213> E. coli

Please spell out the Genus ("Escherichia") in the above <213> response; per Sequence Rules, show the Genus species in that response. Same response in subsequent sequences.

<210> 20

<211> 34

<212> DNA

<213> Mus musclus

Please change the above <213> response to "Mus musculus".

<210> 21

<211> 36

<212> DNA

<213> HBV

Please spell out the virus in the above <213> response; same in Sequence

22.

<210> 51
<211> 364
<212> DNA
213> Artificial Sequence

<220>
<223> pSnip ribozyme cassette

Please add an opening bracket ("<") to the above <213> numeric identifier. It must be <213>.

Application No: 10082973 Version No: 3.0

Input Set:

Output Set:

Started: 2009-05-28 10:39:30.012
Finished: 2009-05-28 10:39:33.620
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 608 ms
Total Warnings: 45
Total Errors: 2
No. of SeqIDs Defined: 73
Actual SeqID Count: 73

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 402	Undefined organism found in <213> in SEQ ID (8)
W 402	Undefined organism found in <213> in SEQ ID (9)
W 402	Undefined organism found in <213> in SEQ ID (10)
W 402	Undefined organism found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (12)
W 402	Undefined organism found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 402	Undefined organism found in <213> in SEQ ID (20)
W 402	Undefined organism found in <213> in SEQ ID (21)
W 402	Undefined organism found in <213> in SEQ ID (22)
W 213	Artificial or Unknown found in <213> in SEQ ID (37)
W 213	Artificial or Unknown found in <213> in SEQ ID (38)
W 213	Artificial or Unknown found in <213> in SEQ ID (39)

Input Set:

Output Set:

Started: 2009-05-28 10:39:30.012
Finished: 2009-05-28 10:39:33.620
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 608 ms
Total Warnings: 45
Total Errors: 2
No. of SeqIDs Defined: 73
Actual SeqID Count: 73

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (40)
W 213	Artificial or Unknown found in <213> in SEQ ID (41)
W 213	Artificial or Unknown found in <213> in SEQ ID (42)
W 213	Artificial or Unknown found in <213> in SEQ ID (43)
W 213	Artificial or Unknown found in <213> in SEQ ID (44)
W 213	Artificial or Unknown found in <213> in SEQ ID (45)
W 213	Artificial or Unknown found in <213> in SEQ ID (46)
W 213	Artificial or Unknown found in <213> in SEQ ID (47)
W 213	Artificial or Unknown found in <213> in SEQ ID (48) This error has occurred more than 20 times, will not be displayed
E 249	Order Sequence Error <212> -> <220>; Expected Mandatory Tag: <213> in SEQID (51)
W 402	Undefined organism found in <213> in SEQ ID (54)
W 402	Undefined organism found in <213> in SEQ ID (55)
W 402	Undefined organism found in <213> in SEQ ID (56)
W 402	Undefined organism found in <213> in SEQ ID (57)
W 402	Undefined organism found in <213> in SEQ ID (58)
W 402	Undefined organism found in <213> in SEQ ID (59)
W 402	Undefined organism found in <213> in SEQ ID (60)
W 402	Undefined organism found in <213> in SEQ ID (61)
W 402	Undefined organism found in <213> in SEQ ID (62)
W 402	Undefined organism found in <213> in SEQ ID (63)
W 402	Undefined organism found in <213> in SEQ ID (64) This error has occurred more than 20 times, will not be displayed

Input Set:

Output Set:

Started: 2009-05-28 10:39:30.012
Finished: 2009-05-28 10:39:33.620
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 608 ms
Total Warnings: 45
Total Errors: 2
No. of SeqIDs Defined: 73
Actual SeqID Count: 73

Error code	Error Description
E 250	Structural Validation Error; Sequence listing may not be indexable

SEQUENCE LISTING

<110> Norris, James S.
Clawson, Gary A.
Schmidt, Michael G.
Hoel, Brian D.
Pan, Wei-Hua
Dolan, Joseph W.

<120> TISSUE-SPECIFIC AND TARGET RNA-SPECIFIC RIBOZYMES

<130> 14017-0004002

<140> 10/082, 973
2002-02-26

<150> 09/338, 942
<151> 1999-06-24

<150> 60/090, 560
<151> 1998-06-24

<150> 60/096, 502
<151> 1998-08-14

<160> 73

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 492
<212> DNA
<213> Artificial Sequence

<220>
<223> ARN promoter

<400> 1

actcgccggat	catcttcacc	atcgccccca	actcctgcgg	gatatcctcg	tcctccctct	60
ccaccggcac	ccccatggta	gcggccagct	cgcgcctgc	ctgggaaagc	tgtacatgct	120
gatcgccggc	gtcggtgccg	gcggccgggt	cttccgcctg	ctcggcggtg	ccggtccgtg	180
cggccttggc	gtcccgccgc	gcgcgcgatg	agggccgcac	ctgggtggtg	atccagccac	240
tgagggttcaa	cattccagtc	actccggaa	aaatgaaatt	tttccattgg	atcgccccac	300
gcgtcgccaa	cttgagcccc	ctttcgtcg	ccccttgaca	gggtgcgaca	ggtagtcgca	360
gttggtttgc	gcaagtcaact	gattggaaac	gccatcgcc	tgtcagaaat	ggtcgttgcc	420
agacctatgg	ctggcaccccg	catcgccgct	gcgttaccct	tactcctgtt	gtgccttaa	480
cctagcaagg	ac					492

<210> 2
<211> 1113
<212> DNA
<213> Artificial Sequence

<220>
<223> PROC promoter

<400> 2

aattccctcg	agtcccttgcg	ctgcttgcg	ttcatgatgt	cgttagatcg	cgcacatgcacc	60
tgcttgtt	ccagcggtgg	cagggtgate	cggcgatcat	cgcacatccac	ccggatcatg	120
ggtggcaggc	cggccggagag	gtgcagggtcc	gaagcgccct	gttggcact	gaaggcgagc	180
agctcggtaa	tatccatggg	actccccat	tacaagcaag	caggtagaat	gccgccaaag	240
cgcgcgtctc	ggacaaggaa	aacaccggat	gagccagggt	gcttccagga	cacgcgtgg	300
gtcctgcgcc	agacgcggaa	cctcgacact	ggaacaggaa	gatggccatc	gaggccggcg	360
gttgcggagg	cgtcgagccg	acgcccggacc	cacttccata	gggcgcaggt	aatgtccacg	420
atagcagaga	atattgc当地	ggttgc当地	cgc当地ccgt	aggc当地gc当地	agctgc当地	480
cgc当地atccgg	ccacggtc当地	cctgctc当地	gtgagcaaga	ccaagccc当地	cgc当地gggt当地	540
cgc当地aggc当地	acgc当地ggccgg	c当地tgc当地gac	ttc当地ggc当地aa	actacatgc当地	ggaggccct当地	600
ggcaaggcagg	ccgcaactggc	cgacccgtccc	ttgaaactggc	acttcatcg	ccccatccag	660
tc当地gaacaaga	cgc当地ggccat	cgccgagcat	ttccagtg	tc当地actcg	ggaccgggt当地	720
aaagatc当地gc当地c	acgc当地ctgtc	ggagcaacgc	ccggccggg	tgccgccc当地	gaatgtctgc	780
ctgcaagg	acgtc当地agcg	cgaa	actgccc当地	tgctgg	gatggccatc	840
gccc当地tggccg	aggccgtgaa	gcaactgccc	aacctccgat	tgctgg	gacccatc	900
ccgcaacca	ccgccaacgc	cgccg	cgatcg	ccgccc当地	gacccatc	960
ctgctggacc	tgaaccttgg	cctggacacc	ctgtccatgg	gcatgagcg	cgacccatc	1020
gcagccatc	gc当地aagggtc	gacctgg	cgatcg	ccgccc当地	gacccatc	1080
gactacggcg	cgccggcttc	ttgaat	gaatccc			1113

<210> 3

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> ARC promoter

<400> 3

ctagagctat	tgatgtggat	caacattgtc	cactagccgc	tgccgcctaa	tctccagaat	60
tgtgag						66

<210> 4

<211> 685

<212> DNA

<213> Artificial Sequence

<220>

<223> UPCM2 cassette sequence

<400> 4

tcagaaaaatt	atttaaatt	tccaaattgac	attgtgagcg	gataacaata	taatgtgtgg	60
aa	gcttatacg	ataccgtcga	cctcgaa	gatgtgg	tgaggacgaa	120
acgatgacat	tctgctgacc	agattcacgg	tcagcagaat	gtcatcg	gttccaggat	180
ccggctgct	acaaagccc	aaaggaa	gatgtgg	ctgcccaccgc	tgagcaataa	240
ctagcataac	cccttggggc	ctctaaacgg	gtcttgg	gttttttgc	gaaaggagga	300
actatatccg	gatatcccgc	aaggaggccc	gcagtaccgg	cataaccaag	cctatgcct	360
cagcatccag	ggtgacgg	ccgaggat	cgatgagcg	attgttagat	ttcatac	420
gtgcctgact	gcgttag	ttaactgt	ataaactacc	gcattaa	ttatcgat	480
taagctgtca	aacatgagaa	tccggcgt	acgccaatt	tcaagggt	gaccaac	540
gacgatgagg	taccacatcg	tcgtcg	gactgat	ggccgtgagg	ccgaaacc	600
tgacgcgtaa	aaaaaaaccc	ccccggcgg	tttttaccc	ttcctatgc	gccgct	660
tcgagggggg	gcccgt	aga	actag			685

<210> 5

<211> 673

<212> DNA
<213> Artificial Sequence

<220>
<223> P2CM2 cassette sequence

<400> 5

agaaaagcaaa aataaatgct tgacactgta	gcgggaaggc gtataatgga	attgtgagcg	60
gataacaatt cacaagctt a cacaagctt a	tcgataccgt cgacctcgag	cttggacc ctgatgagtc	120
cgtgaggacg aaacgatgac attctgctga	ccagattcac ggtcagcaga	atgtcatcgt	180
cggttccagg atccggctgc taacaaagcc	cgaaaaggaag cttagttggc	tgctgccacc	240
gctgagcaat aactagcata accccttggg	gcctctaaac gggctttag	gggtttttt	300
ctgaaaaggag gaactatatac cggatatccc	gcaagaggcc cggcagtacc	ggcataaacca	360
agcctatgcc tacagcatcc	aggggtgacgg tgccgaggat	gacgatgagc	420
atttcataca cgggcctga	ctgcgttagc aatttaactg	tgataaaacta	480
gcttatcgat gataagctgt	caaacatgag aattcggcgt	atacgcccga	540
ctgcgcaacg acgacgatga	ggtaccacat cgtcgtcggt	gcmcactgat	600
ggccgaaacc cttgacgcgt	aaaaaaaaacc cgccccggcg	gggtttttac	660
gcggccgctc tag			673

<210> 6

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 6

agctcgagct caga	14
-----------------	----

<210> 7

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 7

tcgacggatc tagatcc	17
--------------------	----

<210> 8

<211> 56

<212> DNA

<213> E. coli

<400> 8

agatctaaat cattcacctg atgagtccgt	gaggacgaaa cttagcaaa ccaagg	56
----------------------------------	-----------------------------	----

<210> 9

<211> 54

<212> DNA

<213> E. coli

<400> 9

agatctaaat tcgttctga tgagtccgtg aggacgaaac accacaaaag atct 54
<210> 10
<211> 54
<212> DNA
<213> *E. coli*

<400> 10
agatctaaac cacatcctga tgagtccgtg aggacgaaac agttaaacc aagg 54
<210> 11
<211> 55
<212> DNA
<213> *E. coli*

<400> 11
agatctaaac gattcctga tgagtccgtg aggacgaaac atcaccaaac caagg 55
<210> 12
<211> 56
<212> DNA
<213> *E. coli*

<400> 12
agatctaaat gcgtctgatg agtccgtgag gacgaaacag gcaggtaaaa ccaagg 56
<210> 13
<211> 53
<212> DNA
<213> *Streptomyces lividans*

<400> 13
agatctaaag tactcctgat gagtccgtga ggacgaaacc agcgaacca agg 53
<210> 14
<211> 55
<212> DNA
<213> *Enterococcus faecalis*

<400> 14
agatctaaaa ctttgctga tgagtccgtg aggacgaaac gtgtataaac caagg 55
<210> 15
<211> 54
<212> DNA
<213> *Psudeomonas putida*

<400> 15
agatctaaat cgcttctga tgagtccgtg aggacgaaac gtgataaacca aagg 54
<210> 16
<211> 54
<212> DNA
<213> *Streptomyces coelicolor*

<400> 16
agatctaaag tcgatgctga tgagtccgtg aggacgaaac ttgcacaaacc aagg 54

<210> 17
<211> 56
<212> DNA
<213> *Staphylococcus warneri*

<400> 17
agatctaaat gcgtctgatg agtccgtgag gacgaaacag gcaggcgaaa ccaagg 56

<210> 18
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> B2 consensus

<400> 18
tgctttctg atgagtcgt gaggacgaaa ccgcctga 38

<210> 19
<211> 39
<212> DNA
<213> *Mus musculus*

<400> 19
ttcaaagact gatgagtccg tgaggacgaa acgaggatc 39

<210> 20
<211> 34
<212> DNA
<213> *Mus musculus*

<400> 20
gtccatctga tgagtccgtg aggacgaaac cggc 34

<210> 21
<211> 36
<212> DNA
<213> *HBV*

<400> 21
attagagctg atgagtcgt gaggacgaaa caaacg 36

<210> 22
<211> 37
<212> DNA
<213> *HPV*

<400> 22
gtcctgactg atgagtcgt gaggacgaaa cattgca 37

<210> 23
<211> 44
<212> DNA
<213> *Homo sapiens*

<400> 23

tccgttgtct ctgatgagtc cgtgaggacg aaacatgaca ccga	44
<210> 24	
<211> 39	
<212> DNA	
<213> Homo sapiens	
<400> 24	
gcgaggagct gatgagtccg tgaggacgaa acatggtgt	39
<210> 25	
<211> 37	
<212> DNA	
<213> Mus musculus	
<400> 25	
aactttctg atgagtcgt gaggacgaaa cataatg	37
<210> 26	
<211> 42	
<212> DNA	
<213> Rattus norvegicus	
<400> 26	
tcgaagctgt ctgatgagtc cgtgaggacg aaaccgcgtt ga	42
<210> 27	
<211> 37	
<212> DNA	
<213> Mus musculus	
<400> 27	
atcagggtct gatgagtccg tgaggacgaa aggtgcc	37
<210> 28	
<211> 37	
<212> DNA	
<213> Rattus norvegicus	
<400> 28	
tcttcgactg atgagtcgt gaggacgaaa catggct	37
<210> 29	
<211> 37	
<212> DNA	
<213> Homo sapiens	
<400> 29	
tagcacactg atgagtcgt gaggacgaaa cgtttga	37
<210> 30	
<211> 36	
<212> DNA	
<213> Homo sapiens	
<400> 30	
tgcaatactg atgagtcgt gaggacgaaa ctgcct	36

<210> 31
<211> 36
<212> DNA
<213> Homo sapiens

<400> 31
aagtcatctg atgagtcgt gaggacgaaa cctgga 36

<210> 32
<211> 36
<212> DNA
<213> Homo sapiens

<400> 32
gataaggctg atgagtcgt gaggacgaaa ctttcc 36

<210> 33
<211> 36
<212> DNA
<213> Homo sapiens

<400> 33
catattcctg atgagtcgt gaggacgaaa cactcg 36

<210> 34
<211> 38
<212> DNA
<213> Homo sapiens

<400> 34
tcatgtatct gatgagtcgt tgaggacgaa acaaaagg 38

<210> 35
<211> 36
<212> DNA
<213> Homo sapiens

<400> 35
ggttaaactg atgagtcgt gaggacgaaa cttggg 36

<210> 36
<211> 36
<212> DNA
<213> Homo sapiens

<400> 36
gtccagtcgt atgagtcgt gaggacgaaa ctttaag 36

<210> 37
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 37
cccggaatt cgtatggcc acgcggccgc tcgagctctg atgatccgt gagga 55

<210> 38
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 38
gacggatcc agatctgagc tcgagctgac ggtaccgggt accgttcgt cctcacgga 59

<210> 39
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 39
gagctcagat ctggatccgt cgacggatct agatccgtcc tcatgatcc gtgag 55

<210> 40
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 40
ttgcttggcc agcggccgct gcagatccgt ttctgtccctca cggact 46

<210> 41
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 41
gatctgctct tctgtatgagt ccgtgaggac gaaaccgctg a 41

<210> 42
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 42
gatctcagcg gtttcgtccct cacggactca tcagaagagc a 41

<210> 43
<211> 64
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 43
cttggAACCG gatGCCAGGC atCCGGTTGG tgcctttcgt cctcacggac tcatcagtag 60
tgaa 64

<210> 44
<211> 65
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 44
cttggAACCG gatGCCAGGC atCCGGTTAA gaagtttcgt cctcacggac tcatcagtt 60
cccta 65

<210> 45
<211> 65
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 45
aattcaACCG gatGCCAGGC atCCGGTTCT caggtttcgt cctcacggac tcatcagaaa 60
atctg 65

<210> 46
<211> 64
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 46
aattcaACCG gatGCCAGGC atCCGGTTTG gacctttcgt cctcacggac tcatcagAGC 60
gtgg 64

<210> 47
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> ribozyme construct

<400> 47
 aattcaaccttccatggccatccgggttca gcctttcgatc ctcacggact catcagtgtg 60
 ttg 63

<210> 48
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> ribozyme construct

<400> 48
 aattcaaccttccatggccatccgggtttaa ccttttcgtt ctcacggat tcatacgatc 60
 tacg 64

<210> 49
 <211> 170
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> pClip triple ribozyme

<221> modified_base
 <222> (1) ... (170)
 <223> n=a, c, g, or u

<400> 49
 gcggccgcuc gagcucugau gaguccguga ggacgaaacg guacccggua ccgucagcuc 60
 gagaucunnn nnnncugaug aguccgugag gacgaaannnn nnagauccgu cgacggau 120
 aauccgucc ugaugagucc gugaggacga aacggau 170
 cug cggccgc

<210> 50
 <211> 249
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> pChop triple ribozyme

<221> modified_base
 <222> (1) ... (249)
 <223> n=a, c, g, or u

<400> 50
 aagcuuugga acccugaua guccgugagg acgaaacgau gacauucugc ugaccagau 60
 cacggucagc agaauguau cgucggaucc aggaucnnnn nnnccugaug guccgugagg 120
 acgaaannnn nnnnnngaaau uccaagggucc ugcgcacacg 180
 cgacgaugag guaccacau 240
 gugcugcguug cgcacugau 249
 aggccgugag gcccggaaaccc uugacgcguu ccuaugcggc
 cgcucuaga

<210> 51
 <211> 364
 <212> DNA

213> Artificial Sequence

<220>

<223> pSnip ribozyme cassette

<400> 51

aagcttcgag ctctgatgag tccgtgagga cgaaacggta cccggtaccg tcagctcgac	60
ctcgatctc tcgagcaatt gatccgtcga cggatgtaga tccgtcctga tgagtccgtg	120
aggacgaaac ggatctcag cggatatcca gctttggAAC cctgtatgagt ccgtgaggac	180
gaaacgatga cattctgctg accagattca cggtcagcag aatgtcatcg tcggttccag	240
gatccttgcc tgaattccaa gggtctgcgc aacgacgacg atgaggtaacc acatcgctgt	300
cgttgcgcac tcatgaggccgttgc aacccttgcac gcgttccttat gcggccgcgtc	360
taga	364

<210> 52

<211> 685

<212> DNA

<213> Artificial Sequence

<220>

<223> modified pChop cassette

<400> 52

tcaaaaaatt atttaaatt tccaatttgcattgtgagcg gataacaata taatgtgtgg	60
aagcttatcg ataccgtcga cctcgaagct ttggAACccct gatgagtccg tgaggacgaa	120
acgatgacat tctgtgtacc agattcacgg tcagcagaat gtcatcgctg gttccaggat	180
ccggctgcta acaaagcccg aaaggaagct gagttggctg ctgccaccgc tgagcaataa	240
ctagcataaac ccctttgggc ctctaaacgg gtcttgaggg gtttttgc gaaaggagga	300
actatatccg gatatcccgc aagaggcccg gcagtaccgg cataaccaag cctatgccta	360
cagcatccag ggtgacggtg ccgaggatga cgatgagcgc attgttagat ttcatcacag	420
gtgcctgact gcgttagcaa tttaactgtg ataaactacc gcattaaagc ttatcgatga	480
taagctgtca aacatgagaa ttccggctat acgcccatt tcaagggtct gcgcaacgac	540
gacgatgagg taccacatcg tcgtcggtgc gcactgatga ggcgtgagg ccgaaaccct	600
tgacgcgtaa aaaaaaccggccccggg tttttaccc ttccatgcg gccgctctag	660
tcgaggggggg gcccgcataa actag	685

<210> 53

<211> 216

<212> DNA

<213> Artificial Sequence

<220>

<223> pChop ribozyme cassette

<400> 53

aagcuuugga acccugaua guccgugagg acgaaacgau gacauucugc ugaccagauu	60
cacggucagc agaauguaua cgucgguucc aggauccuug ccugauuucc aaggguugc	120
gcaacgacga cgaugaggua ccacauucguc gucguugcgc acugauugagg ccgugaggcc	180
gaaacccuug acgcguuccu auggccgcgc ucuaga	216

<210> 54

<211> 54

<212> DNA

<213> E. coli

<400> 54

agatctaaac gccgatctga tgagtccgtg aggacgaaac tttaaaaacc aagg 54

<210> 55

<211> 56

<212> DNA

<213> E. coli

<400> 55

agatctaaac atctactga tgagtccgtg aggacgaaac attacgaaac caaagg 56

<210> 56

<211> 54

<212> DNA

<213> E. coli

<400> 56

agatctaaaa aaaaacctga tgagtccgtg aggacgaaac tggtaaaag atct 54

<210> 57

<211> 54

<212> DNA

<213> E. coli

<400> 57

agatctaaat tatccactga tgagtccgtg aggacgaaac gggcgaaaag atct 54

<210> 58

<211> 54

<212> DNA

<213> E. coli

<400> 58

agatctaaat cgttacctga tgagtccgtg aggacgaaac taccgaaaag atct 54

<210> 59

<211> 54

<212> DNA

<213> E. coli

<400> 59

agatctaaat gatgttctga tgagtccgtg aggacgaaac cacttaaaag atct 54

<210> 60

<211> 54

<212> DNA

<213> E. coli

<400> 60

agatctaaat ttccactga tgagtccgtg aggacgaaac gtgcaaaaag atct 54

<210> 61

<211> 55

<212> DNA

<213> E. coli

<400> 61
agatctaatt gataccctga tgagtccgtg aggacgaaac agtcagaaaa gatct 55

<210> 62
<211> 54
<212> DNA
<213> *E. coli*

<400> 62
agatctaaac gttagtcgtga tgagtccgtg aggacgaaac caacaaaacc aagg 54

<210> 63
<211> 54
<212> DNA
<213> *E. coli*

<400> 63
agatctaaag gcatcactga tgagtccgtg aggacgaaac tggtaaaacc aagg 54

<210> 64
<211> 53
<212> DNA
<213> *E. coli*

<400> 64
agatctaaaa gagcgctgat gagtccgtga ggacgaaaca gtcaaaacca agg 53

<210> 65
<211> 54
<212> DNA
<213> *E. coli*

<400> 65
agatctaaat ttcgatctga tgagtccgtg aggacgaaac cagctaaacc aagg 54

<210> 66
<211> 53
<212> DNA
<213> *Streptomyces lividans*

<400> 66
agatctaaac tcgtcctgat gagtccgtga ggacgaaacg atcaaaacca agg 53

<210> 67
<211> 51
<212> DNA
<213> *Streptomyces lividans*

<400> 67
agatctaaag ggcgctgatg agtccgtgag gacgaaacgc gaaaaccaag g 51

<210> 68
<211> 56
<212> DNA
<213> *Enterococcus faecalis*

<400> 68

agatctaaaa ctaaatgctg atgagtccgt gaggacgaaa cgagttaaaa ccaagg 56

<210> 69

<211> 57

<212> DNA

<213> Enterococcus faecalis

<400> 69

agatctaaag ttaataact gatgagtccg tgaggacgaa acttgttcaa accaagg 57

<210> 70

<211> 54

<212> DNA

<213> Pseudomonas putida

<400> 70

agatctaaag gtccatctga tgagtccgtg aggacgaaac aaagcaaacc aagg 54

<210> 71

<211> 54

<212> DNA

<213> Pseudomonas putida

<400> 71

agatctaaac aggttcctga tgagtccgtg aggacgaaac aatgtaaacc aagg 54

<210> 72

<211> 54

<212> DNA

<213> Streptomyces coelicolor

<400> 72

agatctaaag ctcgatctga tgagtccgtg aggacgaaac gaaccaaacc aagg 54

<210> 73

<211> 52

<212> DNA

<213> Streptomyces coelicolor

<400> 73

agatctaaac gagtcctgat gagtccgtga ggacgaaacc gggaaaccaa gg 52